Harnessing "Big Data" to Stop HIV July 13-14, 2015

5601 Fishers Lane - Rockville, MD

NIAID Division of AIDS (DAIDS), NIMH Division of AIDS Research (DAR),

NIH OD Big Data to Knowledge (BD2K), and

Bill and Melinda Gates Foundation

Meeting Objectives

- Identify types and sources of data that can be used to optimize HIV treatment and prevention strategies
- Consider ethical challenges to using "big data" sources
- Examine methods for collecting, integrating, and analyzing large databases and how they can be optimized for HIV epidemiology, treatment, and prevention
- Generate recommendations for advancing the use of large data sources to develop increasingly effective HIV treatment and prevention strategies

July 13, 2015

- 12:00 pm Opening Remarks and Welcome

 Dr. Carl Dieffenbach Director, Division of AIDS/NIAID
- 12:10 Introduction: Why "Big Data," Why Now?

 Dr. Carolyn Williams Chief, Division of AIDS Epidemiology Branch
- 12:15 Overview of Consultation

 Dr. David Burns Chief, Division of AIDS Clinical Prevention Research Branch

I. Big Data and the Public Interest Moderator: Dr. Jennie Larkin - Senior Advisor, NIH Office of the Associate Director for Data Science

12:30 - 1:00 pm	Dr. Daniel Masys
1:00 – 1:20	Synthesizing Complex Data For Research and Public Health Dr. Neil Abernethy
1:20 – 1:40	Commercial Use of Big Data in the Public Interest Mr. Bruce Cerretani
1:40 – 2:00	Twitter and Social Media in Public Health Research

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Dr. Ming-Hsiang Tsou

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2:00 – 2:20 pm	Causal Inferences from Big Data Dr. Miguel Hernan			
2:20 – 2:40	EOS: Large-Scale, Data-Intensive Warning for Forced Migration Dr. Jeff Collmann			
2:40 – 3:00	Questions and Discussion			
3:00 – 3:20	Break			
II. Ethical Challenges to Using Big Data Moderator: Dr. Liza Dawson – Research Ethics Team Leader, Division of AIDS				
3:20 – 3:40 pm	Current Research Oversight Systems and Big Data Research Dr. Jeffrey Kahn			
3:40 - 4:00	Use of Big Data for Public Health Objectives: Contextual Approach to Privacy Dr. Helen Nissenbaum			
4:00 – 4:20	Risks of Public Health Research Using More Easily Accessible Information Dr. Solon Barocas			
4:20 – 5:00 Drs.	Panel Discussion: Addressing Ethical Challenges Nissenbaum, Barocas, Kahn, Collmann, James Grimmelmann			
5:00 – 5:20	Wrap-Up of Discussions from Day 1			

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Dr. David Burns

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July 14, 2015

8:45 am Welcome & Overview of Day 2

Rosemary McKaig - Epidemiologist & Program Officer, Division of AIDS

III. Methods for Big Data Collection and Analysis Moderator: Dr. Victor DeGruttola

9:00 – 9:20	Statistical Approaches to Protecting Confidentiality When Sharing Potentially Identifiable Data Dr. Jerry Reiter
9:20 – 9:40	"Black Box" Approach to Sharing and Analysis of Private Information Dr. J.C. Smart
9:40 – 10:00	Online Information and HIV in US Counties: Theory Testing and Prediction Dr. Dolores Albarracín
10:00 - 10:20	Break
10:20 – 10:40	Creating Synthetic Information to Make Effective use of Big Data Dr. Stephen Eubank
10:40 – 11:00	Network Research Methods Dr. W. Martina Morris
11:00 – 11:20	From Big Data to Knowledge Dr. Stephen Cole
11:20 – 11:40	Modeling Complex Epidemiological and Genetic Data: Identification and Estimation of Key Epidemic Drivers Dr. Christophe Fraser
11:40 – 12:00 pm	Panel: Methodology Challenges & Solutions Drs. Albarracín, Cole, Eubank, Fraser, Morris, Reiter, and Smart

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12:00 – 12:30 pm **Open Discussion** 12:30 – 1:30 **Lunch (on your own)**

IV. Harnessing "Big Data" to Stop HIV: Research Priorities Breakout Sessions: 1:30 - 2:45 pm

Men Who Have Sex with Men		Drs. Patrick Sullivan and Christian Grov		
Women and Girls		Drs. Ada Adimora and Audrey Pettifor		
Treatment & Prevention Continuum		Drs. Wafaa El-Sadr & Susan Buchbinder		
Early HIV Infection & Persons Unaware of Their HIV+ Status		Drs. Myron Cohen and Susan Little		
Ethical, Legal and Policy Issues		Drs. Jeffrey Kahn and Helen Nissenbaum		
2:45 – 3:00		Break		
V. Reports from Breakout Sessions				
3:00 – 3:15 pm	Men Who Have Sex With Men (MSM)			
3:15 – 3:30	Women and Girls			
3:30 – 3:45	HIV Treatment & Prevention Continuum			
3:45 – 4:00	Early Infection & Persons Unaware of Their HIV+ Status			
4:00 – 4:15	Ethical, Legal and Policy Issues			
4:15 – 5:00	Panel: Research Priorities - Moderators and Rapporteurs			
5:00	Wrap-Up and Acknowledgements Drs. David Burns and Carolyn Williams, Division of AIDS			

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